

Abstract

A pneumatic vehicle tire of the radial type with a tread strip, which has a width defined as the tread width TW, which represents its maximal width in the ground contact area in the case of mounted, loaded and inflated tires, where, when viewed in cross section, the outer contour of the tread strip has at least three different radii over its width TW, of which the first radius TR_1 extends over an area encompassing the zenith of the tire, while an adjoining area on both sides of this area has a radius TR_2 , which is smaller than the radius TR_1 , and while on each side of this area an adjoining area has a radius TRA, which is smaller than the radius TR_1 of the area encompassing the zenith of the tire. In each case, the edges of the tread strip defined by the tread width TW run in an area with a fourth radius, a shoulder radius provided in the transition area to the sidewalls of the tire. The radius TRA is determined according to the equation $0.05 TR_1 \leq TRA \leq 0.65 TR_1$. The radius TR_2 can be either less than or greater than the radius TRA, where, for the case $TR_2 \leq TRA$, the radius TR_2 is determined according to the equation $0.05 TR_1 \leq TR_2 \leq 0.6 TR_1$, and, for the case $TR_2 \geq TRA$, the radius TR_2 is determined according to the equation $0.1 TR_1 \leq TR_2 \leq 0.95 TR_1$.